

CLAIMS.

1. A method of treating a patient in need of therapy for a neurodegenerative disease comprising administering to that patient a therapeutically effective dose of a triglyceride oil containing both γ -linolenic acid and linoleic acid residues as triglyceride ester, the ratio of γ -linolenic acid to linoleic acid residues at the sn-2 position of the triglyceride being at least 0.8; the amount of γ -linolenic acid residues at the sn-2 position being at least 18%, wherein the oil is administered at a dose sufficient to maintain or elevate TGF- β 1 levels in the patient at a therapeutic level.
2. A method as claimed in Claim 1 wherein the therapeutic level is such as to produce a TGF- β 1/TNF- α ratio of at least 0.5 in blood of a patient, after 18 months of daily dosing.
3. A method as claimed in Claim 2 wherein the ratio is at least 0.75.
4. A method as claimed in Claim 2 wherein the ratio is at least 1.
5. A method as claimed in Claim 1 wherein the amount of oil administered is between 3 and 30 grams per day.
6. A method as claimed in Claim 1 wherein the oil is administered orally.
7. A method as claimed in Claim 1 wherein the dose is sufficient to administer at least 1 gram of γ -linolenic acid residues, as residues in the sn-2 position, excluding other γ -linolenic acid content of the oil.

8. A method as claimed in any one of the preceding claims wherein the amount of γ -linolenic acid in the sn-2 position in the dose of oil is sufficient to administer at least 2 grams of said sn-2 γ -linolenic acid.
- 5 9. A method as claimed in any one of the preceding claims wherein the dose is between 8 and 20 grams.
- 10 10. A method as claimed in any one of the preceding claims wherein in addition to the γ -linolenic acid and linoleic acid fatty acid residues, the triglyceride includes an esterified fatty acid that is non-structural.
11. A method as claimed in claim 10 wherein the triglyceride contains oleic acid residues.
- 15 12. A method as claimed in claim 1 wherein the oil is that obtained from a fungus or a plant selected from the group consisting of Mucor and Borago species.
- 20 13. A method as claimed in Claim 12 wherein the fungus or plant is selected from Mucor javanicus and Borago officianalis.
14. A method as claimed in Claim 1 wherein the oil is a Borago oil in which the percentage of esterified γ -linolenic acid at the sn-2 position is at least 35% of fatty acid residues at that position
- 25 15. A method as claimed in Claim 14 wherein the percentage of esterified γ -linolenic acid at the sn-2 position is at least 39% of fatty acid residues at that position.
16. A method as claimed in Claim 14 wherein the percentage of esterified γ -linolenic acid at the sn-2 position is at least 45% of fatty acid residues at that position

17. A method as claimed in any one of the preceding claims wherein the fatty acid residues in the sn-1 and sn-3 position include linoleic, oleic and γ -linolenic acid residues.
- 5 18. A method as claimed in any one of the preceding claims wherein the triglyceride oil has an oleic acid content in one or both of the sn-1 and sn-3 positions of in excess of 12%.
- 10 19. A method as claimed in Claim 1 wherein the oil is Mucor oil and, the total percentage of esterified γ -linolenic acid residues at the sn-2 position is at least 20% of fatty acid residues at that position.
- 15 20. A method as claimed in Claim 19 wherein the triglyceride oil has in excess of 45% of the sn-2 fatty acid residues as oleic acid residues.
21. A method as claimed in Claim 19 wherein the triglyceride oil has in excess of 50% of the sn-2 fatty acids as oleic acid residues.
- 20 22. A method as claimed in any one of the preceding claims wherein the triglyceride oil contains less than 5% monoenoic fatty acid residues as % total fatty acid residues.
- 25 23. A method as claimed in Claim 22 wherein the triglyceride oil contains less than 5% in total erucic acid (22:1n-9), 24:1n-9 (nervonic acid) and 20:1n-9 (gadoleic acid) as a percentage of total fatty acid residues .
24. A method as claimed in Claim 22 or 23 wherein the amount of said acid is between 1% and 5% of fatty acid residues in the oil.

25. A method as claimed in any one of the preceding claims wherein the oil has no added vitamin E.
26. A method as claimed in any one of the preceding claims wherein the amount
5 of Vitamin E is between 0 and 0.1mg/g.
27. A method as claimed in any one of the preceding claims wherein the neurodegenerative disease is arrested or neuronal function is restored.
- 10 28. A method as claimed in any one of the preceding claims wherein treatment is for multiple sclerosis or the degenerative sequelae associated with head trauma, stroke and intracranial bleeds.
29. A method as claimed in claim 28 wherein the treatment repairs lesions.
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30. A method as claimed in Claim 1 or 28 wherein the treatment uses a dose sufficient to relieve muscle spasticity and/or pain.
31. A method as claimed in Claim 1 or 28 wherein the dosage is sufficient to
20 improve cognitive function.
32. A method as claimed in Claim 1 or 28 wherein the dosage is sufficient to eliminate relapses.
- 25 33. A method as claimed in Claim 1 or 28 wherein the dosage is sufficient to improve the patients EDSS score by at least 1 unit over a period of 1 years treatment.
34. A method as claimed in Claim 1 or Claim 28 wherein the dosage is sufficient to restore EDSS of a patient with EDSS above 2.5 to below 2 over a period of 1 years
30 treatment.

35. Use of an oil as described in any one of Claims 1 to 34 for the manufacture of a medicament for the treatment of neurodegenerative disease.

- 5 36. A pharmaceutical composition for the treatment of neurodegenerative disease comprising a Borago or Mucor species triglyceride oil as described in any one of Claims 14 to 26.

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